REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 14-24 were pending in this application. Claims 14 and 20 have been amended to further clarify features of the present invention, and new claims 25-34 have been added hereby. Support for the amended and new claims can be found throughout the specification and drawings. No new matter has been presented. Upon entry of this Amendment, claims 14-34 will be pending herein and, for the reasons set forth below, are all believed to be in condition for allowance.

In the final Office Action mailed October 30, 2008,

- Claims 14-17, 19-22 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Diab et al. (US 6,229,856; "Diab") in view of Peterzell et al. (US 6,694,129; "Peterzell"); and
- Claims 18 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentable over Diab in view of Peterzell and further in view of Czaja et al. (US 6,567,666; "Czaja").

These grounds of rejection are respectfully traversed.

As noted in Applicant's prior response, the present invention provides a mixed signal chip 10 to process received radio signals of a given one of two receiver systems (e.g., one in accordance with UMTS (3G) and another in accordance with GSM (2G)). Based on the given receiver system, the invention selects an appropriate configuration for various components, including, for example, an ADC, Decimator, FIR filter, and Sample Rate Adaption unit. (See Figs. 1-3.)

Diab discloses a multi-channel signal demodulation apparatus used in a pulse oximetry system. Diab mainly discloses a premodulation sample rate compression process (1621, 1820) to reduce the complicated design of a postmodulation sample rate compression process (see Diab at Figs. 16 - 18). Diab also discloses an Adaptive Algorithm (1850) that is responsive to, e.g., environmental noise, and that selects factors (R1, R2), and filter transfer functions for an

adaptive decimator 1820, 1830, 1834, and 1840 to improve the quality of the output signals (see Diab at col. 29, lines 49-64).

Applicant respectfully submits that Diab fails to disclose or to suggest the features that the Examiner asserts are described therein. Specifically, contrary to the assertions made by the Examiner, Diab fails to disclose the "filter" of claim 14 or 20, and Diab also fails to disclose the "adjuster" of claim 14 or 20. Each of these features is taken in turn below.

1. **Diab does not disclose the filter recited in claim 14 or 20.** The filter in claim 14 or 20 must be "capable of filtering the signal in **both a first manner which is required when the receiver is of a first type** and **a second manner which is required when the receiver is of a second type**". That is, the claimed filter is configured to filter different type signals based on the type of receiver. In contrast, and as the Examiner noted in the final Office Action (at page 3), Diab describes a set of filters that are filtering with respect to different demodulating signals and the corresponding channel mixers. Accordingly, a given individual filter in Diab is only capable of filtering one type signal from a channel. As such, in Diab, the filter cannot be configured to serve signal types for different receiver types.

2. **Diab does not disclose the adjuster in claim 14 or 20.** The adjuster in claim 14 or claim 20 "is adapted to perform adjustments to the sample rate **when the receiver is of the second type**", where "the adjustments comprise altering the sample rate **before the signal is filtered** to permit the filter to perform filtering in the second manner and altering the sample rate **after the signal has been filtered** to provide the signal with a sample rate required by the second type of receiver". The adjuster only acts when the receiver is of the second type. For example, when the received signal is consistent with a UMTS system (the first type), the signal does not need the sampling process before or after the signal is filtered (see Fig. 2); but when the received signal is consistent with a GSM system (the second type), the signal does need the sampling process before and after the signal is filtered (see Fig. 3). Diab describes a methodology that adjusts the factors of predemodulation sample compression and postdemodulation according to environmental noise, which has nothing at all to do with the communication system (receiver) type. **Moreover, and perhaps even more significantly, Diab**

always requires the sample process, but the claimed invention relies on a sample process only when the receiver is of a second type ("whereas the filter performs filtering in the first manner without the adjustments to the sample rate when the receiver is of the first type").

Based on the foregoing clear distinctions between the claimed invention and the Diab reference, it is respectfully submitted that Diab, even in combination with Peterzell and/or Czaja, cannot render the claimed invention obvious.

Claims 25-33 are new claims, and claims 25 and 30 are independent claims. Claim 25 recites a receiver that is one of a first type and a second type, a switch, a decimator, a filter, and an adaptor. Claim 33 is a method claim comprising a receiving step, a decimating step, a filtering step and an adapting step. It is respectfully submitted that Diab does not disclose, at least, that only one type signal is processed at a given time and the decimator/adaptor are not operated for a certain signal type.

In view of the foregoing all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone applicants' undersigned representative at the number listed below.

Dated: January 21, 2009

Respectfully submitted by:

/Lawrence D. Eisen/

Lawrence D. Eisen
Reg. No. 41009

EDELL, SHAPIRO & FINNAN, LLC
CUSTOMER NO. 27896
1901 Research Boulevard, Suite 400
Rockville, MD 20850
(301) 424-3640